

## *Class: Exploring Creation with General Science*

### *Vocabulary:*

#### *Module One:*

**science** - A branch of study dedicated to the accumulation and classification of observable facts in order to formulate general laws about the natural world. (1)

**papyrus** - A primitive form of paper, made from a long-leaved plant of the same name. (2)

**spontaneous generation** - The idea that living organisms can be spontaneously formed from non-living substances. (9)

#### *Module Two:*

**counter example** - An example that contradicts a scientific conclusion. (38)

**hypothesis** - An educated guess that attempts to explain an observation or answer a question. (40)

**theory** - A hypothesis that has been tested with a significant amount of data. (40)

**scientific law** - A theory that has been tested by and is consistent with generations of data. (40)

#### *Module 3:*

**experimental variable** - An aspect of an experiment which changes during the course of the experiment. (59)

**control (of an experiment)** - The variable or part of the experiment to which all others can be compared. (65)

**blind studies** - Experiments in which the participants do not know whether or not they are a part of a control group. (71)

**double blind studies** - Experiments in which neither the participants nor the people analyzing the results know who is in the control group. (72)

#### *Module 4:*

**simple machine** - A device that reduces the amount of force needed to perform a task or changes the direction of a force. (86)

**force** - A push or pull that changes the motion of an object. (86)

**mechanical advantage** - The amount by which force or motion is magnified in a simple machine. (89)

**diameter** - The length of a straight line that travels from one side of a circle to another, while passing through the center of a circle. (94)

**circumference** - The distance around a circle, equal to 3.1415 times the circle's diameter. (103)

#### *Module 5:*

**life sciences** - A term that encompasses all scientific pursuits related to living organisms. (111)

**archaeology** - The study of past human life as revealed by preserved relics. (111)

**artifacts** - Objects made by humans such as tools, weapons, containers, etc. (111)

**geology** - The study of earth's history as revealed in the rocks that make up the earth. (112)

**paleontology** - The study of life's history as revealed in the preserved remains of once-living plants and animals. (112)

**Aristotle's dictum** - The benefit of the doubt is to be given to the document itself, not assigned by the critic to himself (114)

**known age** - The age of an artifact as determined by a date printed on it or a reference to the artifact in a work of history. (125)

**dendrochronology** - The process of counting tree rings to determine the age of a tree. (125)

**radiometric dating** - Using a radioactive process to determine the age of an item (128)

**absolute age** - The calculated age of an artifact from a specific dating method that is used to determine when the artifact was made. (128)

**The Principle of Superposition** - When artifacts are found in rock or earth that is layered, the deeper layers hold the older artifacts. (129)

#### *Module 6:*

**catastrophism** - The view that most of earth's geological features are the result of large-scale catastrophes such as floods, volcanic eruptions. (137)

**uniformitarianism** - The view that most of earth's geological features are the result of slow gradual processes that have been at work for millions or even billions of years (137)

**humus** - The decayed remains of once-living creatures (138)

**minerals** - Inorganic crystalline substances found naturally in the earth (139)

**weathering** - The process by which rocks are broken down by the forces of nature (146)

**erosion** - The process by which sediments and rock fragments are carried away by wind or rain (149)

**unconformity** - A surface of erosion that separates one layer of rock from another (155)

#### *Module 7:*

**petrification** - The conversion of organic material into stone (164)

**resin** - A sticky, liquid substance that usually hardens when exposed to air (169)

**extinct** - A term applied to a species of plant or animal that was once living but now is not (172)

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### **Module 8:**

**index fossils** - A fossil considered to represent a certain period in earth's past (189)

**geological column** - A theoretical picture in which layers of rock from around the world are meshed together into a single, unbroken record of earth's past (194)

**The Theory of Evolution** - A theory which states that all of life on this earth has a single, common ancestor that existed a long time ago (195)

### **Module 9:**

**atom** - The smallest stable unit of matter in Creation (218)

**molecule** - Two or more atoms linked together to make a substance with unique properties (218)

**photosynthesis** - The process by which a plant uses the energy of sunlight and certain chemicals to produce its own food (227)

**metabolism** - The process by which a living organism takes energy from its surroundings and uses it to sustain itself, develop, and grow (228)

**receptors** - Special structures or chemicals that allow living organisms to sense the conditions of their surroundings (229)

**cell** - The smallest unit of life in Creation (236)

### **Module 10:**

**prokaryotic cell** - A cell that has no organelles (246)

**eukaryotic cell** - A cell with organelles (246)

**pathogen** - An organism that causes disease (250)

**decomposers** - Organisms that break down the dead remains of other organisms (255)

**vegetative reproduction** - The process by which the stem of a plant can form new roots and develop into a mature plant (260)

### **Module 11**

**axial skeleton** - The portion of the skeleton that supports and protects the head, neck, and trunk (273)

**appendicular skeleton** - The portion of the skeleton that attaches to the axial skeleton and has the limbs attached to it. (273)

**exoskeleton** - A body covering, typically made of a tough, flexible substance called chitin, that provides support and protection (274)

**symbiosis** - Two or more different organisms living together so that each benefits for the other (287)

### **Module 12:**

**producers** - Organisms that produce their own food. (295)

**consumers** - Organisms that eat living producers and/or other consumers for food (296)

**herbivore** - A consumer that eats producers exclusively (297)

**carnivore** - A consumer that eats only other consumers (297)

**omnivore** - A consumer that eats both plants and other consumers (297)

**basal metabolic rate** - The minimum amount of energy required by the body every day (311)

### **Module 13:**

**digestion** - The process by which an organism breaks down its food into small units which can be absorbed (321)

**vitamin** - A chemical substance essential for the normal working of the human body (338)

### **Module 14:**

**veins** - Blood vessels that carry blood back to the heart (345)

**arteries** - Blood vessels that carry blood away from the heart (345)

**capillaries** - Tiny, thin walled blood vessels that allow the exchange of gases and nutrients between the blood and cells (345)

### **Module 15:**

**gland** - A group of cells that prepare and release a chemical for use by the body (371)

**vaccine** - A weakened or inactive version of a pathogen that stimulates the body's production of antibodies which can destroy the pathogen (376)

**hormone** - A chemical released on the bloodstream that sends signals to specific cells, causing them to change their behavior in specific ways (382)

### **Module 16:**

**autonomic nervous system** - The system of nerves which carries instructions from the CNS to the body's smooth muscles, cardiac muscle, and glands (402)

**sensory nervous system** - The system of nerves which carries information from the body's receptors to the CNS (402)

**motor nervous system** - The system of nerves which carries instructions from the CNS to the skeletal muscles (402)